employment than non-smokers or ex-smokers: 14.26% of subjects acknowledge having had their employment disrupted within the past 6 months.The differences noted between the "smokers", "ex smoker" and "non smoker" populations are statistically significant ($P < 0.001$) with prevalence of disrupted employment respectively of 19%, 15.25% and 11.57% ($p < 0.01$). It is also noted that the prevalence of smoking during work hours is significantly more important when the hierarchical superior smokes. 64.44% smoke during work hours if the hierarchical superior smokes, vs51.17% if the hierarchical superior does not smoke ($p < 0.004$) **CONCLUSIONS:** In a population representative of persons at work on French soil, this study confirms the data collected abroad and in certain businesses in France. Therefore, the justification for taking smoking into account at the work place is reinforced by its health consequences as well as its direct consequences on the work produced.

PRS30

HEALTH CARE RESOURCE USE AND TIME TO DIAGNOSIS ATTRIBUTABLE TO MANAGING COW MILK ALLERGY IN THE USA: CURRENT ESTIMATES AND PREDICTED EFFECTS OF LEGISLATION THAT REQUIRES HEALTH CARE COVERAGE FOR AMINO ACID FORMULAS

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OBJECTIVES: Cow Milk Allergy (CMA) is estimated to occur in 5% of newborns in the USA. Ten states instated legislation that requires health coverage for amino acid formulas for CMA. This study aims at assessing the effects of this legislation on health care resource use and time to diagnosis for these states and to predict the effects for the whole country by extrapolating, should all states adopt similar legislation. Two scenarios may explain a better access to amino acid formulas in mandated states: 1) amino acid formulas are used as first treatment option by specialists when patients have not reached symptom resolution at the community paediatrician level, or 2) all patients try a maximum of 2 treatment options, before amino acids are prescribed. **METHODS:** This study uses a decision analytical model with resource use data elicited from 202 health care professionals combined with probabilistic sensitivity analysis using a beta distribution with 20% standard deviation around the means to assess uncertainty of the input parameters. **RESULTS:** Health care resource use attributable to CMA treatment in the combined 50 states amounts to 371,043 community paediatrician visits, 3,695 hospital paediatrician visits, 17,704 outpatient paediatric gastroenterologist visits and 6,779 allergist visits. 6,216,006 days are spent to reach symptom resolution. The predicted reduction in number of total specialist visits for the USA for scenario 1 is 4,532, and 9,888 for scenario 2. The reduction in time to diagnosis amounts to 84,188 days for scenario 1 and 292,783 days for scenario 2. **CONCLUSIONS:** Legislation requiring coverage for amino acids after diagnosis of CMA is likely to reduce health care resource use in the USA, free up time of health care professionals to use in an alternative way, as well as reduce the time to diagnosis, which reduces the suffering of children with CMA.

RESPIRATORY-RELATED DISORDERS – Patient-Reported Outcomes Studies

PRS31

RELATIONSHIP BETWEEN DAILY DOSING FREQUENCY, COMPLIANCE, HEALTH CARE RESOURCE USE, AND COSTS: EVIDENCE FROM THE TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

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OBJECTIVES: To assess the relationship between the daily dosing frequency (DDF) of COPD pharmacotherapies and treatment compliance; to estimate the effect of compliance on health care resource utilization (HCRU) and costs. **METHODS:** COPD patients were identified using a health insurance claims database covering 8 million lives (1999–2006). Patients were stratified based on the recommended DDF (QD, BID, TID, QID) of their first COPD drug claim post COPD diagnosis. Compliance was measured using proportion of days covered (PDC). HCRU outcomes included inpatient days and medical visits (inpatient, outpatient, and emergency room). A multivariate regression model assessed the relationship between compliance and one-year HCRU controlling for demographics, comorbidities, and baseline resource use. Unit health care costs were obtained from the 2005 Medical Expenditure Panel Survey data and adjusted to 2008 dollars. Total costs were modeled by multiplying unit costs by the observed HCRU. **RESULTS:** Sample sizes ranged from 3,678 (QD) to 25,011 (BID). Compliance was strongly correlated with DDF: PDC over one year for QD, BID, TID, and QID patients was 43%, 37%, 30%, and 23%, respectively (all $p < 0.001$ vs. QD). Multivariate analysis showed that one-year compliance was correlated with HCRU. For 1,000 COPD patients, a 5 percentage point increase in PDC reduced the number of inpatient visits by 2.5%, hospital inpatient days by 3.1%, and emergency room visits by 1.8%; the estimated number of outpatient visits increased by 0.2% ($p < 0.001$ for all comparisons). This increase in compliance yielded approximately $300,000 in cost savings from decreased HCRU. **CONCLUSIONS:** COPD patients who initiated treatment with QD dosing had significantly higher compliance than those with more frequent dosings. Patients with higher compliance were found to incur fewer hospital- and emergency room-related visits. In a hypothetical cohort of 1,000 COPD patients, increasing PDC by 5 percentage points would save $300,000 per year, mostly from reduced hospital visits.

PRS32

RELATIONSHIP OF COST-SHARING LEVELS TO ADHERENCE WITH DUAL-CONTROLLER THERAPY AMONG ASTHMA PATIENTS

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OBJECTIVES: To analyze the effect of cost-sharing levels and other co-variates on adherence to asthma controller therapy among patients with moderate persistent asthma. **METHODS:** Data for this study came from a large administrative claims dataset (MarketScan). The selection criteria for this study included patients with at least one asthma-related outpatient claim (ICD-9-CM 493.XX).Asthma patients on dual controller therapy (ICS and LABA or ICS and LTRA) were identified and the initial date of LABA or LTRA prescription served as the index date.Patients were required to be continuously enrolled during the entire study period. The medication possession ratio (MPR) was used to measure adherence. **RESULTS:** A total of 1,447 patients met the study criteria. Of these patients, 898 (62.1%) were initiated on ICS+LABA, and 549 (37.9%) were initiated on ICS+LTRA. The average combined adherence to controller regimen was 0.45 (median = 0.43) for the entire study population.The odds of having increased adherence (MPR above the median) decreased significantly with the increase in cost-sharing levels. Compared with patients having $0–15 cost-sharing level, patients having $16–30 (odds ratio [OR] = 0.449, 95% CI = 0.312–0.616), $31–45 (OR = 0.246, 95% CI = 0.168–0.358) and $46 and more (OR = 0.131, 95% CI = 0.084–0.206) had lower odds of having appropriate adherence. Type of insurance plan, geographical region, and type of controller therapy were also significantly associated with adherence. **CONCLUSIONS:** Even though the need to be adherent is greater among patients on dual-controller therapy, cost-sharing levels played an important role in level of adherence. The study also found the type of controller medication to be associated with the adherence to the therapy.

PRS33

TRANSLATING THE EXACT: ENSURING CONCEPTUAL EQUIVALENCE ACROSS MULTIPLE CULTURES

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OBJECTIVES: Translation and linguistic validation of patient reported outcomes (PRO) measures is an essential component of research methodology in preparation for multinational clinical trials. The EXAcerbations of Chronic Pulmonary Disease Tool (EXACT) was designed to evaluate frequency, severity, and duration of acute exacerbations of chronic obstructive pulmonary disease (COPD), including chronic bronchitis. The EXACT is 14-item daily diary designed to be administered on an electronic handheld device (e.g. personal digital assistant (PDA)). The objective of this work was to translate and linguistically validate the EXACT for use in 17 countries: Australia, Austria, Belgium, Bulgaria, Canada, Denmark, Hungary, Japan, Korea, The Netherlands, Peru, Philippines, Poland, Romania, South Africa, Taiwan and UK. **METHODS:** The EXACT was translated according to industry standard methodology, including detailed item definitions based on qualitative work conducted during instrument development. Five patients per country completed the respective translated questionnaire and participated in a cognitive interview. Interviews were conducted using a standardized guide to assess the understandability, cultural relevance, and appropriateness of wording of the translations. Qualitative analyses were performed to ensure that the content validity of the EXACT was maintained and equivalent across language versions. **RESULTS:** The study sample consisted of 90 patients with COPD (57.7% male). Mean age was 63 years. The sample consisted of patients who speak 14 languages collectively. All EXACT translations were well understood and proved relevant to the patients in this sample. Of interest, terms such as, "chest feel tight", and "short of breath" were understood and described similarly by participants across countries. **CONCLUSIONS:** The results indicate the EXACT translations were conceptually equivalent to the English source version and easily understood by the target population for all 17 countries. We consider these translations acceptable for PRO assessment in international research and clinical trials, bringing the total number of validated EXACT translations to 25.

PRS34

EVALUATING PEOPLE'S PREFERENCES FOR PREVENTIVE TREATMENT OF LATENT TUBERCULOSIS INFECTION USING A DISCRETE CHOICE EXPERIMENT

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OBJECTIVES: This study aimed to quantify the preferences of people with latent tuberculosis infection (LTBI) when making decisions on whether to accept preventive treatment with Isoniazid and to understand the trade-off nature of their decision-making. **METHODS:** English-speaking adults with LTBI were recruited from the tuberculosis (TB) clinic at British Columbia Centre for Disease Control. A custom-designed discrete choice experiment (DCE) measured preferences for 6 attributes of preventive treatment decision-making. A conditional logit model was performed to estimate respondents' preferences. **RESULTS:** Among the 152 participants, 142 (93.4%) with valid DCE responses were included for data analyses. Their average age